LOW-OVERHEAD CONSISTENCY CHECK FOR SHARED RESOURCE USING FLUX INDICATOR

Abstract of the Disclosure

A flux indicator is utilized as a low-overhead consistency check for a shared resource such as a data structure, and provides a mechanism for determining both whether a data structure has or is currently in the process of being modified. In connection with

5   attempts to modify the data structure, the flux indicator is updated from a first state to a second state prior to modifying the data structure, and thereafter updated to a third state after modifying the data structure. Copies of the flux indicator are then obtained both before and after attempting to obtain a copy of data from the data structure. The validity of the copy of the data is ensured when the first copy of the flux indicator does not

10   indicate that the data structure is in the progress of being modified and the first and second copies of the flux indicator have the same state.